

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 5445 (1978): Long Fluted Machine Reamers with Morse Taper Shanks [PGD 32: Cutting tools]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

REAFFIRMED

SPECIFICATION FOR
LONG FLUTED MACHINE REAMERS WITH
MORSE TAPER SHANKS

2007

(First Revision)

1. **Scope** — Covers dimensions and requirements for long fluted machine reamers with morse taper shanks.
2. **Dimensions** — As given in Table 1.
3. **Tolerances** — Tolerance on cutting length l and overall length L shall be as given below:

All dimensions in millimetres.

Cutting Length l and Over- all Length L		Tolerance
Over	Up to and Including	
6	30	+1
30	120	± 1.5
120	315	± 2
315	1 000	± 3

4. General Requirements

- 4.1 **Bevel Lead Angle** — 45° to be concentric with the diameter of reamer within 0.03 mm.
- 4.2 **Back Taper** — Back taper on the cutting diameter is recommended; when provided the amount of back taper shall be within the limits of tolerance on the taper.
- 4.3 **Flutes** — Unless otherwise specified, left hand helical flutes for right-hand cutting.
- 4.4 For requirements not covered in this standard it shall conform to the requirements as given in IS : 5443-1969 ' Technical supply conditions for reamers '.
5. **Sampling** — The sampling and criteria of acceptance shall be in accordance with IS : 7778-1975 ' Methods for sampling small tools '.

6. **Designation** — A long fluted machine reamer with morse taper shank having diameter $d = 16.0$ mm, made from high speed steel, conforming to this standard and suitable for a hole with tolerance H8, shall be designated as:

Reamer 16.0 IS : 5445

6.1 When the reamer is required for a hole with tolerance other than H8, an appropriate hole tolerance shall be included in the designation after size.

7. **ISI Certification Marking** — Details available with the Indian Standards Institution.

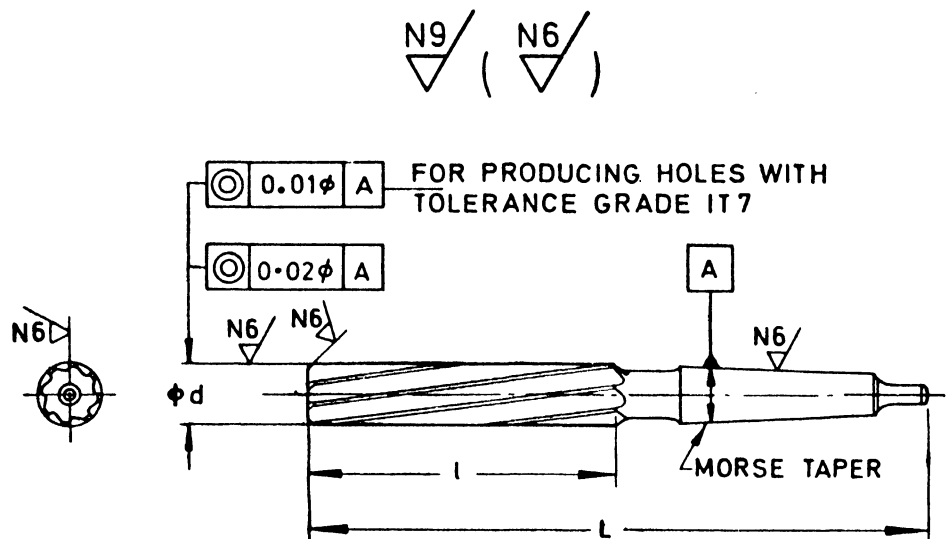
Adopted 18 September 1978

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TABLE 1 DIMENSIONS FOR LONG FLUTED REAMERS WITH MORSE TAPER SHANKS
(Clause 2)

All dimensions in millimetres.



d* m6	Range of Diameter d		l	L	Morse Taper	
	Over	Up to and Including				
7·0	6·7	7·5	54	134	1	
8·0	7·5	8·5	58	138		
9·0	8·5	9·5	62	142		
10·0	9·5	10·6	66	146		
11·0	10·6	11·8	71	151		
12·0	11·8	13·2	76	156		
(13·0)			76	156		
14·0	13·2	14·0	81	161	2	
(15·0)	14·0	15·0	81	181		
16·0	15·0	17·0	87	187		
(17·0)						
18·0	17·0	19·0	93	193		
(19·0)						
20·0	19·0	21·2	100	200		
(21·0)						
22·0	21·2	23·02	107	207		
(23·0)						
*Recommended diameters, non-preferred sizes are given within parentheses.						

(Continued)

**AMENDMENT NO. 2 NOVEMBER 1990
TO
IS 5444:1978 SPECIFICATION FOR PARALLEL
HAND REAMERS WITH PARALLEL SHANKS**

(First Revision)

**(Page 1, clause 4.2) - Substitute the following
for the existing clause:**

**"4.2 Back Taper - Back taper on the cutting
diameter is recommended; when provided the amount
of back taper shall be in accordance with
IS 5443:1984 'Technical supply conditions for high
speed steel reamers'."**

(PED 10)

Reprography Unit, BIS, New Delhi, India

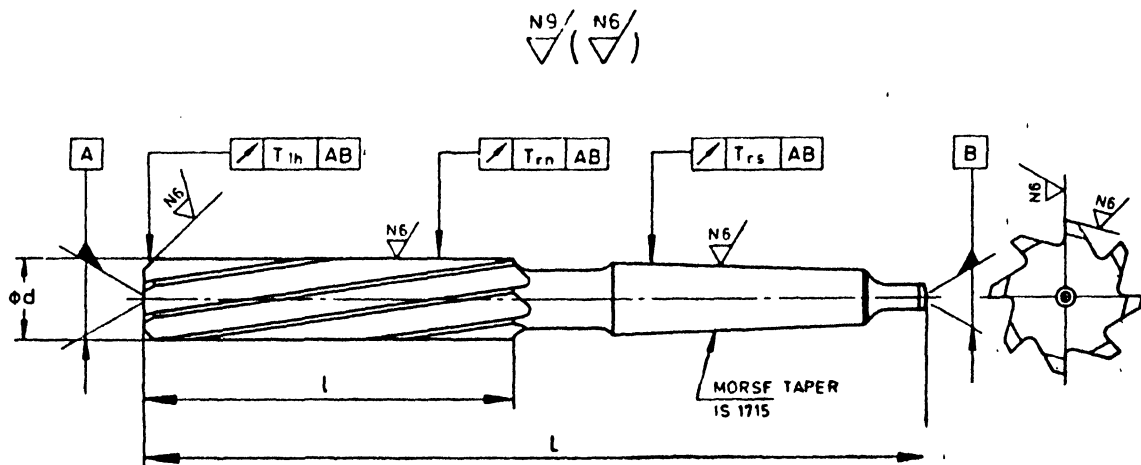
AMENDMENT NO. 1 MARCH 1989
TO
IS : 5445-1978 SPECIFICATION FOR LONG FLUTED MACHINE REAMER
WITH MORSE TAPER SHANKS

(First Revision)

(Page 1, clause 4.1) — Substitute the following for the existing matter:
 ' Bevel lead angle shall be 45° . '

(Page 1, clause 4.4) — Substitute the following for the existing matter:
 "For requirements such as terminology, material, hardness, tolerances, marking, protective coat and packaging, not covered in this standard, it shall conform to the requirements as given in IS 5443-1984 ' Technical supply conditions for high speed steel reamers (first revision)' . "

(Page 2, Table 1, Figure) — Substitute the following figure for the existing figure:



(EDC 45)

TABLE 1 DIMENSIONS FOR LONG FLUTED REAMERS WITH MORSE TAPER SHANKS — Contd

All dimensions in millimetres.

d* m6	Range of Diameter d		l	L	Morse Taper
	Over	Up to and Including			
—	23·02	23·6	107	234	3
(24·0)	23·6	26·5	115	242	
25·0					
(26·0)					
(27·0)	26·5	30·0	124	251	
28·0					
(30·0)					
—	30·0	31·75	133	260	4
32·0	31·75	33·50	133	293	
(34·0)	33·50	37·5	142	302	
(35·0)					
36·0					
(38·0)	37·5	42·5	152	312	
40·0					
(42·0)					
(44·0)	42·5	47·5	163	323	
45·0					
(46·0)					
(48·0)	47·5	50·8	174	334	
50·0					
(52·0)					
(55·0)	50·8	53·0	174	371	5
56·0					
(58·0)					
60·0	53·0	60·0	184	381	
(62·0)					
63·0					
67·0	60·0	67·0	194	391	
71·0					
	67·0	75·0	203	400	
*Recommended diameters, non-preferred sizes are given within parentheses.					

EXPLANATORY NOTE

This standard was first published in 1969 and is being revised to bring it in line with the work done at ISO level. In the preparation of this standard considerable assistance has been drawn from ISO 236/II-1976 'Long flutes machine reamers, morse taper shanks' issued by the International Organization for Standardization.